UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,780	01/26/2001	Sid Chaudhuri	2000-0051	3990

7590   06/29/2005

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EXAMINER
FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Office Action Summary	Application No.	Applicant(s)
		09/769,780	CHAUDHURI ET AL.
		Examiner	Art Unit	
		Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 January 2005</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-62,64 and 66* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-30 and 32-61* is/are allowed.

6)☒ Claim(s) *31,62,64 and 66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 January 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/13/2005</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   This Office action is in response to applicant's paper filed 1/31/2005. **Claims** 1-62, 64,

and 66 as amended are still in consideration for this application. Applicant has canceled claims

63 and 65. Applicant has added no claims.

2.   Examiner **withdraws** the claim objection(s). Examiner thanks applicant for making the

necessary corrections.

3.   Examiner **withdraws** the 112-second paragraph rejection(s). Examiner thanks applicant

for making the necessary corrections to clarify the recited claimed subject matter and thus

withdraws the rejection.

4.   Examiner **withdraws** the anticipated rejection to *Ghani*. The following comments fully

address applicant's arguments with respect to the rejection. Applicant's arguments have been

fully considered and are persuasive. In particular, applicant has amended the claims to overcome

the rejection(s). Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made (see below).

5.   Examiner **withdraws** the obviousness rejections to *Ghani* and corresponding secondary

references. The following comments fully address applicant's arguments with respect to the

rejection. Applicant's arguments have been fully considered and are persuasive. In particular,

applicant has amended the claims to overcome the rejection(s). Therefore, the rejection has been

withdrawn.

Specification

6.   The disclosure is objected to because of the following informalities: please update the

cross-reference information on pages 1, 5, and 10.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   **Claims 31 and 62** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,728,484 B1 to *Ghani et al.* (*"Ghani"*) in view of "An Object Oriented

Application/Programmer Interface for Network Programming" to *Howell et al.* (*"Howell"*).

As to **claim 31**, a step of naming is taught using the IP addresses, see e.g., column

15, lines 1-29; a step of determining the current topology and resources is taught as part

of the Resource Updates, see e.g., column 11, lines 29-40 in reference to column 12; a

step of requesting establishment is taught as a Channel Request Message, see e.g.,

column 10, line 65 – column 11, line 59; and allocating said lightpath is also taught as

part of the Channel Request Message, see also column 9, lines 59-67.

Ghani may be silent or deficient to the further limitation of using an API. In

particular, *Ghani* discloses using commands sent from higher-layer clients 560 which in

combination with channel provisioning form control settings, see e.g., figure 5.

Howell teaches the further recited limitation above for API at e.g., the middle of

page 439. In particular, *Howell* teaches that API is a software program to carry out and

program low-level services, see e.g., right-hand column on page 437.

The proposed modification of the above-applied reference(s) necessary to arrive

at the claimed subject matter would be to modify *Ghani* by clarifying that control settings

to the WDM optical node are API settings.

Examiner notes that it would have been obvious to one skilled in the art prior to

applicant's invention to include the further limitations maintaining information regarding

a state of said reconfigurable optical network and generating an API call to create a

lightpath, said API call results in a message. In particular, the motivation for modifying

the reference or to combine the reference teachings would be to program the WDM

switch as part of control settings and to maintain state of the optical network also using

RSVP as part of MPLS. In particular, *Ghani* cures the above-cited deficiency of an API

by disclosing an interface to program the WDM (see e.g., figure 5) Second, there would

be a reasonable expectation of success since MPLS is taught for RSVP and the real-time

software is also taught, see e.g., column 10, lines 50-57 and column 16, lines 6-15 of

Ghani. Thus the references either in singular or in combination teach the above claim

limitation(s).

As to **claim 62**, see similar rejection to claim 31.

9.   **Claims 64 and 66** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 6,728,484 B1 to *Ghani et al.* ("*Ghani*") in view of "A Framework for MPLS" to

Callon et al. ("*Callon*") and "Resource ReSerVation Protocol (RSVP)" to *Braden et al.* ("*Braden*").

As to **claim 64**, *Ghani* may be silent or deficient to the further limitation of maintaining state information. However, examiner would argue that some state information is maintained since a channel release message is used to tear-down a connection.

Callon teaches the further recited limitation above for state information at e.g., the bottom of page 84. In particular, *Callon* teaches that RSVP is a part of MPLS, see e.g., Section 3.4.2 on page 28.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ghani* by clarifying that state information is maintained via RSVP.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitations maintaining information regarding a state of said reconfigurable optical network. In particular, the motivation for modifying the reference or to combine the reference teachings would be to maintain state of the optical network also using RSVP as part of MPLS. In particular, *Ghani* cures the above-cited deficiency of maintaining state by supporting MPLS which in-turn supports RSVP found at e.g., column 10, lines 32-40 and column 14, lines 56-64. Second, there would be a reasonable expectation of success since MPLS is taught for RSVP and the real-time software is also taught, see e.g., column 10, lines 50-57 and column 16, lines 6-15 of *Ghani*.

RSVP is further clarified through the use of timers which would release the state

of the channel given the reservation. Thus examiner notes that it would have been

obvious to one skilled in the art prior to applicant's invention to release the expiration as

a result of the soft-state, wherein the soft state fails to timely forward a message to create

said lightpath to create said lightpath in order to maintain said lightpath. *Braden* cures

the deficiencies and provides the motivation by clarifying a soft-state that uses refreshing,

see e.g., Section 2.2 on page 22-23. In particular, *Braden* teaches the further limitation of

maintaining a connection before expiration of a time to live value in Section 2.2 with

respect to a cleanup timeout interval. Using the references in combination the connection

is the lightpath connection as taught by the references in combination. Thus the

motivation is provided as follows: *Ghani* teaches that MPLS is possible; *Callon* teaches

that MPLS uses RSVP; and *Braden* clarifies the soft-state in RSVP. Thus the references

either in singular or in combination teach the above claim limitation(s).

As to **claim 66**, see similar rejection to claim 64.

Allowable Subject Matter

10.   **Claims 1-26, 27-30, 32-57, and 58-61** are allowed.

Conclusion

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123.

The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

RICKY NGO
PRIMARY EXAMINER